

♀. Antennæ much more slender, joints 3-9 longer than broad.

Length  $4\frac{1}{10}$ -5, breadth  $1\frac{9}{10}$ -2 mm. (♂ ♀.)

*Hab.* E. AFRICA, Kashitu in N.W. Rhodesia (*H. C. Dollman*: i. 1915).

Two males and one female are referred to *H. hamatus*, which is extremely like *H. furcatus* from the same locality, and is only separable therefrom by the ♂-characters: the anterior trochanters are strongly hooked and the intermediate tibiæ abruptly, moderately widened from near the base (as in *H. platycerus*, ♂); the anterior tibiæ want the prominent median lobe; the intermediate femora are somewhat deeply emarginate near the apex; and the antennæ are rather broadly dilated, but much less so than in *H. platycerus*.

[To be continued.]

XXXIII.—*On Mammals from the Lower Amazons in the Goeldi Museum, Para.* By OLDFIELD THOMAS.

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As already noted in connection with the description of the new spiny rat, *Lonchothrix emiliæ*, the authorities of the Goeldi Museum, Para, have kindly allowed me the opportunity of examining the series of mammals accumulated by them during the last six years.

As the fauna of this region is still very imperfectly known, I think it useful to give a list of the whole of the specimens and their localities.

The majority of the specimens have been collected by Fräulein Dr. E. Sneathlage, and it is to her energy and ability in collecting, and to the enlightened generosity of the Trustees of the Goeldi Museum in the distribution of the specimens, that the greater part of our increased knowledge of Amazonian mammals is due.

A previous paper of the same kind, giving a list of twenty-eight species, was published in 1912\*, while a number of Amazonian novelties received from the Para Museum have been described at various times since 1908.

The regions chiefly concerned in the present series are

\* Ann. & Mag. Nat. Hist. (8) ix. p. 84 (1912).

two—one being in the neighbourhood of Manaos, on the Solimoes or lower Rio Negro, and the other at Villa Braga, on the western bank of the Rio Tapajoz, just above the first rapids. At this latter place Fräulein Snethlage made the most important collection of all—quite a number of new and interesting forms occurring in it.

Besides Fräulein Snethlage's specimens, the series owes many interesting forms to Senhor F. Lima, one of her keenest and most helpful contributors.

A series of duplicates, and all types, are generously presented to the British Museum by the authorities at Para.

In regard to the present collection, special notice may be directed to the re-discovery of the white-nosed saki (*Pithecia albinasa*), only previously known from the type, described in 1848, and to the numerous interesting novelties contained in it—notably the tuft-tailed spiny rat *Lonchothrix emilie* and the whitish bat *Depanycteris isabella*, both of these representing new genera, and to the new marmoset *Hapale emilie*, from the Curuá River.

The following list of localities has been given me by Dr. Snethlage:—

Utinga, near Para.—Woods near the waterworks.

Marajó Island.—Fazenda Ilha da Roça and Faz. Pacoval dos Mellos.

R. Flor do Prado, one of the small coastal rivers east of Para.—Quatipurú.

Rio Tocantins.—Fazenda Vaicajó, Cametá.

Rio Iriri, a left affluent of the Xingú.—Sta. Julia and Liberdade.

Rio Curuá, a left affluent of the Iriri—upper waters.

Monte Alegre, north bank of the Amazon nearly opposite Santarem.—Fazenda S. Pedro, Juçaratena.

Taperinha.—A Fazenda on the right bank of the Amazon below Santarem.

Rio Tapajoz.—Villa Braga, left bank, just above the first rapids.

Rio Jamauchim (right affluent of the Tapajoz).—Sta. Helena.

Rio Negro.—Acajutuba, a little above Manaos.

Rio Solimoes.—Manacapurú, a little above the mouth of the Rio Negro.

Ceará.—Ladeira Grande, in the south of the state.—Serra do Castello.

1. *Cebus apella*, L.

♀. 29. R. Iriri (*F. Lima*).

♀. 68, 69. Acajutuba, R. Negro (*E. Sneathlaga*—as are all specimens not otherwise credited).

♂. 114, 115. Villa Braga, R. Tapajoz.

2. *Pithecia pithecia*, L.

♂. 57, 61; ♀. 58, 59, 60. Acajutuba, Rio Negro.

♀. 62, 63. Manacapurú, R. Solimoes.

3. *Pithecia monachus*, Geoff.

♂. 117; ♀. 118. Villa Braga, Rio Tapajoz.

Villa Braga is on the left (western) bank of the Tapajoz, just above the first rapids.

4. *Pithecia albinasa*, Geoff. & Dev.

♀. 31. Rio Iriri, R. Xingú.

The rediscovery of this well-defined species is of much interest, for it seems never to have been obtained since its original description in 1848, and the type-specimen in Paris has hitherto remained unique. That type was obtained alive from Indians at Santarem.

Fräulein Sneathlaga's specimen was shot out of a small troupe on the banks of the river.

5. *Callicebus hoffmannsi*, Thos.

♂. 119, 120, 121; ♀. 122. Villa Braga, R. Tapajoz.

Only previously known by the type, collected by W. Hoffmanns at Urucurituba, Santarem.

There is considerable variation in the colour of the under surface, two of these specimens having this pale yellowish like the type, while the other two have it strong ochraceous buffy; but the distribution of the buffy or yellowish is the same in all.

6. *Callicebus remulus*, Thos.

♂. 112. Santarem.

Obtained alive by Fräulein Sneathlaga at Santarem, the original locality more or less doubtful.

Not precisely like true *remulus*, but without a knowledge of the exact locality it is impossible to be sure whether the differences are individual or not.

7. *Aotus trivirgatus*, Humb.

♂. 64; ♀. 66, 67. Mañacapurú, Rio Solimoes.

8. *Hapale emilix*, sp. n.

♂. 36; ♀. 37. Maloca, Upper Curuá River, Upper Rio Iriri, R. Xingú\*.

Near *H. melanurus*, but with white muzzle and no light hip-stripe. General coloration somewhat as in *melanurus*, the shoulders and fore-back silvery grey darkening to rather browner grey on the rump. Hairs of under surface silvery grey. Crown between ears black or blackish, the muzzle in front of the black quite white; cheeks white; chin white, practically naked. Ears large, without tufts, their thin scattered hairs brown. Arms grey, whiter on their inner aspect, hands blackish brown. Legs grey on outer, whiter on inner side, but both aspects more or less suffused with buffy. Feet blackish. Tail black except for its basal inch, which is brownish grey.

"Eyes yellowish brown. Face pink. Ears black at their edges."—*E. S.*

Dimensions of the type (measured in flesh):—

Head and body 199 mm.; tail 308; hind foot 61; ear 29.

Skull: greatest length 44; condylo-basal length 35; zygomatic breadth 29; breadth across orbits 25.5; maxillary tooth-row 11.5.

*Hab.* as above.

*Type.* Adult female. B.M. no. 20. 7. 14. 12. Original number 37. Collected 10th November, 1914, by Fräulein E. Snethlage.

This little marmoset, to which Fräulein Snethlage has drawn my special attention, and which I am pleased to name after her, is a member of the *H. argentatus* group, but is readily distinguishable by its white muzzle and the absence of a light hip-stripe from *H. melanurus*, the only species it at all resembles. Of the other species of the group, *H. argentatus* is almost quite white, apart from its black tail, and has no blackish on the head. *H. chrysoleucos* has hairy ears and a pale yellowish tail.—*H. melanoleucos*, Ribeiro, the Para co-type of which is now in the British Museum, is wholly

\* The Curuá River is marked in Stieler as a tributary of the main Amazon, with its outlet near Santarem; but I prefer to accept Fräulein Snethlage's statement that it is an affluent of the Iriri.

white, its only black being the skin of the face, palms, soles, and scrotum. *H. emiliæ* is therefore evidently a very distinct new species.

9. *Dasypterus ega*, Gerv.

♂. 9. Monte Alegre, near Santarem (*O. Martins*).

10. *Myotis* sp.

♀. 72. Acajutuba, R. Negro.

♂. 76. Cametá, Tocantins (*F. Lima*).

Probably related to *M. simus*, Thos.

11. *Myotis* sp.

♂. 44, 48, 49; ♀. 45, 50. Ladeira Grande, Ceará (*F. Lima*).

*M. nigricans* group.

12. *Rhynchonycteris naso*, Wied.

♀. 27. Rio Iriri, R. Xingú.

♀. 70. Acajutuba, R. Negro.

13. *Saccopteryx bilineata*, Temm.

♂. 55; ♀. 56, 57, 58. Ilha da Roça, Marajo (*F. Lima*).

♂. 78, 79; ♀. 77, 80. Cametá, Tocantins (*F. Lima*).

14. *Saccopteryx leptura*, Schr.

♂. 71. Acajutuba, R. Negro.

♀. 129. Villa Braga, R. Tapajoz.

15. *Saccopteryx canescens*, Thos.

♂. 8; ♀. 7. Monte Alegre, near Santarem (*O. Martins*).

16. *Peropteryx canina*, Wied.

♂. 97. Utinga, Para.

17. *Peronymus leucopterus*, Peters.

♂. 81. Cametá, Tocantins (*F. Lima*).

18. *Diclidurus soutatus*, Peters.

♂. 38, 165. Para.

"Caught in the old town."—*E. S.*

These specimens are of great interest, as no example of *D. scutatus* has been recorded since Peters described the species in 1869, and its locality was unknown. The species is evidently quite distinct from *D. albus* by its smaller size and less complicated caudal gland; but without spirit-specimens the differences in this latter respect are not easy to appraise.

The skull agrees with that of *D. albus* in the extension of the palate behind the level of the posterior molars.

19. *Depanycteris isabella*, gen. et sp. n.♂. 73. Manacapurú, Rio Solimoes (*E. Sneathlge*). *Type*.

## DEPANYCTERIS, gen. nov.

Allied to *Diclidurus*. Colour pale brown, not white. Ears about as in *Diclidurus*; no trace of the enormous lobe on the tragus found in *Cyttarops*. Thumb not so remarkably abbreviated as in *Diclidurus* and possessing a distinct claw. Hind limbs with the feet markedly longer in proportion to the tibiæ, the distance from the base of the calcar to the tip of the claws more than half the length of the lower leg, while it is decidedly less than half in *Diclidurus*. Groove along inner side of tibia shorter, more open, and less sharply defined. Tail-tip in male without any horny capsule, although there is apparently a structure somewhat similar to that of the female of *Diclidurus*.

Skull in most respects similar to that of *Diclidurus*, but the palate is deeply emarginate behind—to the level of the front edge of  $m^3$ ,—while in front it is also more broadly excavated. Basial pits well defined.

Teeth about as in *Diclidurus*.Genotype. *D. isabella*, sp. n.

This relative of *Diclidurus* is in general a less highly specialized form than that is, its brownish colour, more normal pollex, and less developed caudal glands all being evidence in this direction. It has no special affinity with *Cyttarops*.

*Depanycteris isabella*, sp. n.

Size about as in *Diclidurus scutatus*. Colour very similar to that of *Mesophylla macconnelli*, the head and shoulders

dull whitish, the back gradually becoming browner, the rump pale "wood-brown." Under surface dull buffy whitish.

Dimensions of the type (the starred measurements taken in the flesh) :—

Forearm (approximately) 54 mm.

Head and body \* 62 ; tail \* 121 ; hind foot \* 11 ; ear \* 12. Tragus on inner edge 4, breadth 2·8. Third finger, metacarpus 56, first phalanx 10 ; tibia 19, hind foot (c. n.) 9 ; calcar 16

Skull : greatest length (occiput to base of canines) 16 ; basi-sinual length 11·6 ; zygomatic breadth 11·5 ; breadth across orbits 8 ; mastoid breadth 9·2 ; palato-sinual length 3·7 ; front of  $p^1$  to back of  $m^3$  5.

*Hab.* as above.

*Type.* Adult male (softened and placed in spirit). B.M. no. 20. 7. 14. 24. Original number 73. Collected 17th October, 1916, by Fräulein E. Sneathlage.

This new bat forms a most interesting discovery, adding a third genus to the small subfamily *Diclidurinae*. It is in all respects less highly specialized than *Diclidurus*, the well-known white bat of the Neotropical region, which, until the discovery of *Cyttarops* in 1913 †, was supposed to be entirely isolated from all its allies. In colour the white *Diclidurus* remains unique, for both *Cyttarops* and *Depanycteris* are brown, though the latter is an unusually pale brown.

## 20. *Noctilio leporinus*, L.

♂. 51 ; ♀. 52, 53, 54. Ladeira Grande, Ceará (*F. Lima*).

All with well-marked dorsal streaks. No. 52 is strongly fulvous both above and below ; the others are brown above and whitish below.

## 21. *Dirias albiventer*, Spix.

♂. 59 ; ♀. 60, 61, 62. Ilha da Roça, Marajó (*F. Lima*).

The same variation in the colours occurs as with the *Noctilio*, and is equally independent of sex.

Mr. Osgood's observations ‡ about the teeth of *Noctilio* and *Dirias* and the uselessness of the dental characters for distinguishing the two genera are undoubtedly quite correct, as I have verified by the examination of many forms of both groups. But I am none the less disposed to consider that the striking difference in the proportions of the legs and feet

† Ann. & Mag. Nat. Hist. (8) xi. p. 134 (1913).

‡ Field Mus. Publ. x. no. 4, p. 31 (1910).

renders the retention of Miller's genus *Dirias* advisable. No intermediates occur, and I have seen a small *Noctilio*, with skull scarcely larger than that of a large *Dirias*, showing the fully developed *Noctilio* feet, so that the diminution in the size of the feet does not go *pari passu* with that of the animal as a whole.

22. *Dirias irex*, sp. n.

♂. 26, 28. Santa Julia, Rio Iriri, Rio Xingú.

General characters as usual, but size less than in any known form. Colour of type dull brown above, buffy whitish below; paratype wholly fulvous.

Dimensions of type:—

Forearm 53 mm.

Head and body 65; tail 12; ear 22. Third finger, metacarpal 47, first phalanx 12; lower leg and hind foot (c. n.) 33.

Skull: greatest length 18; condylo-basal length 16; condyle to front of canine 15.7; zygomatic breadth 13.4; breadth of brain-case 11; palatal length 8.6; front of canine to back of  $m^3$  7.

*Hab.* as above.

*Type.* Adult male. B.M. no. 20. 7. 14. 29. Original number 26. Collected 13th February, 1914, by Fräulein E. Sneathlago.

This *Dirias* is markedly smaller than any member of the genus hitherto known, its small size coming out especially in the length of the tooth-row. *Dirias minor*, Osg.<sup>‡</sup>, supposed by him to be unusually small, appears from the measurements to be of about the size of the majority of our Amazonian specimens, some few only being larger. The two specimens of *D. irex* agree precisely in the size of the teeth, but the paratype is even smaller than the type in other respects.

23. *Molossus rufus*, Geoff.

♂. 48, 53; ♀. 49, 50, 51, 52. Conceição, Rio Moju, near Para.

24. *Molossus obscurus*, Geoff.

♂. 75; ♀. 76, 77. Acajutuba, Rio Negro.  
♀. 131. Villa Braga, R. Tapajoz.

25. *Tadarida macrotis*, Gray.

♂. 33; ♀. 32. Rio Iriri, Rio Xingú.

‡ *Noctilio minor*, Osgood, *l. c.*



26. *Trachops cirrhosus*, Spix.

♂. 11; ♀. 10. Monte Alegre.

27. *Phyllostomus hastatus*, Pall.

♂. 43, 44; ♀. 42, 45, 46, 47. Conceição, Rio Moju.

28. *Hemiderma perspicillatum*, L.

♂. 41. Conceição, R. Moju, near Para.

29. *Glossophaga soricina*, Pall.

♂. 40. Cerro do Castillo, Ceará (F. Lima).

♂. 130. Villa Braga, R. Tapajoz.

30. *Vampyroides caraccioli*, Thos.

♂. 113. Utinga, Para.

A very interesting capture, as no specimen of *V. caraccioli* has been obtained, so far as I am aware, since I described the type from Trinidad in 1900. The present specimen is fully adult while the type was rather immature, but with the exception of its resultant slightly greater size there is nothing to distinguish the Para from the Trinidad example.

The skull is 26 mm. in total length, the forearm 51.

31. *Chiroderma villosum*, Pet.

♂. 24. S. Antonio do Prata.

32. *Sturnira lilium*, Geoff.

♂. 74. Manacapurú, R. Solimoes.

♂. 98; ♀. 99, 100, 101. Flor do Pardo, Quatipuru.

33. *Sciurus pyrrhonotus*, Wagn.

♂. S. 84. Manacapurú on the Solimoes, near mouth of Rio Negro (normal coloration).

♂. S. 79, 81, 82, 83; ♀. 80. Acajutuba, Rio Negro, near its mouth.

♂. S. 132. Villa Braga, Rio Tapajoz.

♀. Upper Jurua (?).

Of the five specimens from Acajutuba, four are wholly black, and it was no doubt one such that Wagner referred to his *S. igniventris*, but the normal-coloured specimen, which is precisely like No. 84 from Manacapurú, indicates that the Lower Rio Negro form should really be assigned to *pyrrhonotus*.

The capture of a specimen at Villa Braga extends the known range of these giant squirrels eastwards from the Madeira to the Tapajoz basin.

34. *Sciurus astuans paraensis*, Goeldi.

4 ♂. 102, 103, 104, 105. Flor do Prado, Quatipuru, Coast E. of Para.

♂ ♀. L. 82, 83. Cameté, Tocantins (*F. Lima*).

♂. M. 5. Tanaquara (*O. Martins*).

♀. S. 135. Rio Jamauchim.

2 ♀. S. 133, 134. Villa Braga, Tapajoz.

♀. S. 25. R. Iriri, R. Xingú.

♀. L. 35. Serra do Castillo, Ceará (*F. Lima*).

It is at present impossible to make a satisfactory determination of every one of these squirrels, which show a wide range of colour-variation, especially in the amount and intensity of the buffy of the under surface. The name *paraensis* seems to be the best to use provisionally for them until they have again been revised with much further material.

35. *Microsciurus manarius*, sp. n.

♂. 85, 86. Acajutuba, Rio Negro, near its mouth.

An olive species with buffy ear-patches. No  $p^3$  in either of the two specimens.

Fur short and close. General colour above olive-brown, warmer and more buffy on the face and crown. Under surface buffy, of medium richness. Ears with their inner surface and the upper third of their outer surface (proectote) deep ochraceous buffy; lower two-thirds of outer surface and patch behind them paler buffy. Eye-rims buffy. Hands and feet greyish olivaceous. Tail long, narrow, its hairs deep reddish tawny basally, this colour making a median line along the lower surface, black subterminally, and pale buffy at tips; the long hairs at the end of the tail tipped with tawny.

Skull of about the size and shape of that of *M. rubrirostris*, Allen; narrower and with less widely expanded zygomata than that of *M. flaviventer*, Gray.

Small upper premolar ( $p^3$ ); whose presence is supposed to be characteristic of *Microsciurus*, absent in both specimens.

Dimensions of the type:—

Head and body 127 mm.; tail 129; hind foot 38; ear 16.

Skull: greatest length 36.3; condylo-incisive length 32;

zygomatic breadth 21·7; nasals 9·2; interorbital breadth 13; palatilar length 15; upper tooth-series 5·9.

*Hab.* as above.

*Type.* Adult male. B.M. no. 20. 7. 1. 8. Original number S. 86. Collected 21st February, 1916.

This squirrel appears to be most closely related to *M. flaviventer*, Gray, of which, besides the type, the Museum possesses a specimen from the Yahuas Territory, north of Loreto, N.E. Peru. It differs as a species by its paler general colour, its reddish ears, and its narrower and more lightly built skull.

But it also presents a puzzle as to the characters of the genus *Microsciurus*, for with the small size and other external characteristics of the genus it has no  $p^3$ , and might therefore be thought referable to the group of *Sciurus* called *Leptosciurus* by Allen. But in *M. flaviventer*  $p^3$  is proportionally much smaller than is usual in *Microsciurus*, and I am disposed to believe that the present is a species which has gone just one stage further in the same direction, unless these two specimens prove hereafter to be abnormal individuals without the tooth, as occasionally happens. In all other respects the species is a typical *Microsciurus*.

### 36. *Sciurillus pusillus*, Desm.

♀. 137; ♀. 136. Villa Braga, Rio Tapajos (*E. Sneathlage*).

Quite like the type of *Macroxus kuhli*, Gray, which very likely came from this region, and not from Guiana, where alone *Sciurillus* has hitherto been supposed to be found.

### 37. *Holochilus sciureus*, Wagn.

♂. 55, 111. Para.

### 38. *Oryzomys laticeps*, Lund.

♂. 140. ♀. 139, 141. Villa Braga, R. Tapajoz.  
♀. 34. Liberdade, Rio Iriri, R. Xingú.

### 39. *Oryzomys subflavus*, Wagn.

♂. L. 43. Ladeira Grande, Ceará (*F. Lima*).

### 40. *Oryzomys navus messorius*, Thos.

♂. L. 28, 29, 30; ♀. 31. Fazenda Pacoval dos Mellos, Marajo Island (*F. Lima*).

41. *Comomys tapajinus*, Thos.

- ♂. S. 22, 23. Island of Marajo.  
 ♀. S. 138. Villa Braga, R. Tapajoz.  
 ♂. S. 87. Manacapurú, R. Solimoes.  
 ♀. M. 20. Monte Alegre, near Santarem (*O. Martins*).

42. *Proechimys goeldii*, Thos.

- ♂. S. 92; ♀. 90, 91. Acajutuba, Rio Negro.  
 ♂. 94, 95; ♀. 93. Manacapurú, R. Solimoes.  
 Five molar laminæ are frequently, if not invariably, present among these specimens.

43. *Cercomys laurentius*, Thos.

- ♂. L. 42. Serra do Castello, Ceará (*F. Lima*).

44. *Echimyis armatus*, Geoff.

- ♂. 144, 145. Villa Braga, R. Tapajoz.

45. *Lonchothrix emiliae*, Thos.

*Suprà*, p. 114.

- ♂. 142. Villa Braga, R. Tapajoz. *Type*. (B.M. no. 20. 6. 4. 1.)

This remarkable animal, the prize of the collection, has already been described, but I include it here to make the list complete.

46. *Isothrix bistriata negrensis*, subsp. n.

- ♀. 89. Acajutuba, Lower Rio Negro, near its mouth.

Nearly allied to *I. b. orinoci*, and agreeing with it, as contrasted with true *bistriata*, in the presence of marked light postauricular patches and the shortening of the median light crown-patch, which ends opposite the middle of the ears instead of being continued down the nape; the nape is therefore blackish all across instead of being divided in the centre. Differing from *orinoci* by the general colour being strongly suffused with ochraceous, the rump much more ochraceous than the body, the ear-patches buffy instead of whitish, the median crown-patch distinct and buffy instead of being whitish and only vaguely indicated, and by the under surface being strong ochraceous buffy throughout. Tail with the basal two-fifths dull ochraceous instead of a quarter or less.

Skull quite as in *bistriata* and *orinoci*.

Dimensions of the type:—

Head and body 244 mm.; tail 253; hind foot 44; ear 19.

Skull: greatest length 56; condylo-incisive length 51; zygomatic breadth 28·5; nasals 17; interorbital breadth 13·8; upper tooth-series 11·5.

*Hab.* as above.

*Type.* Adult female. B.M. no. 20. 7. 1. 20. Original number 89. Collected 1916 by Dr. E. Sneath.

Animals agreeing with *E. bistriata* in all important characters, external and cranial, are found over the huge area extending from the Rio Guaporé, about 13° S. to the middle Orinoco in 5° N., and westwards to the Ucayali in 75° W., the present locality being about the eastern centre of the area. No doubt the extremes, *bistriata* and *orinoci*, might be thought to be specifically separable by their colour-characters, but their skulls are so identical that I have preferred to keep them under one specific heading. The new form is most allied to *orinoci*, but differs by the characters detailed above.

Natterer's second specimen, mentioned by Pelzeln but not by Wagner, was no doubt, from its locality, an example of *I. b. negressis*.

#### 47. *Dactylomys* sp.

♂. Taperinha, Santarem (*Dr. Hagmann*).

Probably *D. dactylinus canescens*, but in faded pelage and without skull.

#### 48. *Coendou prehensilis*, L.

♂. 150 (young). Villa Braga, R. Tapajoz.

Two further young *Coendous* are also included in the collection, both of them albinistic. Owing to their youth and abnormal coloration they cannot at present be determined with any certainty.

More material of this genus is very much needed, as the skulls are so remarkably variable that satisfactory results can only be attained by the help of good series.

#### 49. *Dasyprocta aguti*, L.

♂. 151. Villa Braga, R. Tapajoz.

#### 50. *Myoprocta acouchy*, Erxl.

♂. M. 18, M. 19. Montaløgre, Juçaratena, N. bank of Amazon nearly opposite Santarem.

These specimens are unusually red, having less black on the hinder back than is usual.

*Dasyprocta exilis*, Wagl., and *D. leptura*, Wagn., would both seem to be referable to this animal, for I find it quite impossible to accept Dr. Allen's identification \* of the former with one of the greenish-coloured *pratti* group, merely because there was a white line down the belly of the type. *D. exilis* was described as "*notæo toto castaneo-fuscescente*," a coloration absolutely in contrast with that of *pratti*, while characteristic of the present form. And *D. leptura* is also "*ferrugineo-rufa*." In consequence, the next species may be considered without reference to those names.

51. *Myoprocta pratti limanus*, subsp. n.

♂. 96. Acajutuba, near mouth of Rio Negro, above Manaos. B.M. no. 20. 7. 1. 24. *Type*.

Colours throughout more vivid than in true *pratti*. Face and crown strongly suffused with ochraceous. Nape-streaks bright ochraceous buffy. Under surface bright yellowish buffy, the chest-hairs buffy to the roots, the belly—apart from the well-developed white median line—wholly buffy, the line of demarcation on sides not sharply marked, as it is in *M. p. milleri*. Chin whitish, almost naked. No trace of the broad brownish slaty bases to the throat-hairs so marked in *milleri*. Inner surface of thighs bright "light orange-yellow." Upper surface of hands and feet dark grizzled tawny.

Skull about as in *pratti*, but the bullæ markedly smaller.

Dimensions of the type:—

Head and body 337 mm.; tail 49; hind foot 86; ear 31.

Skull: greatest length 76.5; condylo-incisive length 66; zygomatic breadth 38; bulla, length on a line parallel with the median axis of the skull 13; upper tooth-series 12.3.

*Hab.* and *type* as above, the latter collected 9th June, 1916, by Fräulein E. Suetlidge.

There would seem to be three subspecies of the greenish acouchy, the true *Myoprocta pratti* of the Marañon of Peru †, with the yellowish of the belly quite narrow, its breadth at most 2 inches, and with comparatively large bullæ; secondly, the form found in Colombia—*M. p. milleri*, Allen,—with broad, sharply defined yellowish belly, the hairs of the throat dark at base, and the nuchal streaks not strongly developed;

\* Bull. Am. Mus. xxxv. p. 205 (1916).

† Mr. Pocock did not record the exact locality, but I have been able to learn from Mr. Pratt that the agoutis were obtained at the Pongo de Rentema, on the Marañon, about 78° 20' W.

and, thirdly, the present form, which represents a considerable extension eastwards of the range of this type of agouti.

As already stated, I feel quite confident that this animal is not Wagler's *D. exilis*, as suggested by Allen, and therefore now give it a new subspecific name.

At Fräulein Snethlage's suggestion I name this well-marked form in honour of her helper and contributor Senhor F. Lima, to whom the Goeldi Museum is indebted for many interesting mammals.

52. *Cyclopes didactylus*, L.

♀. 152, 153. Villa Braga, R. Tapajoz.

53. *Marmosa domina*, sp. n.

♂. 160; ♀. 156, 157, 159 (young). Villa Braga, R. Tapajoz.

*M. cinerea* group; tail wholly brown.

Fur not very long, hairs of back about 10 mm. in length. General colour drabby grey, the sides becoming greyish drab. Under surface not sharply defined, buffy, the chest and inguinal region clear buffy, the belly-hairs slaty at base except along the middle line. Furry portion at base of tail not very extended, only about an inch in length, and its hairs not long, about 5-6 mm. Rest of tail naked, brown to the tip, not whitened terminally.

Skull, as usual in this group, with well-marked triangular postorbital processes.

Dimensions of the type:—

Head and body 166 mm.; tail 250; hind foot 24.5; ear 27.

Skull: upper length 45; condylo-basal length 44.5; zygomatic breadth 25; nasals 20 × 6; interorbital breadth 7.5; breadth across postorbital processes 8.4; palatal length 24.8; breadth across outer corners of  $m^2$  13.8; maxillary tooth-row 18.5; three anterior molariform teeth 7.2.

*Hab.* as above.

*Type.* Adult female (basilar suture closed). B.M. no. 20.7.14.39. Original number 156. Collected 19th June, 1917, by Fräulein Snethlage.

Only two members of this group are without white on the tail-tip—*M. germana* of Ecuador, which has a more or less greyish-brown belly, and *M. regina* of Colombia, larger and more buffy throughout. *M. cinerea demerarae* of Guiana has

but little caudal white, and may be the nearest ally of the present form, but its tail has a considerably longer furry portion at its base.

54. *Marmosa collega*, sp. n.

♂. 154. Villa Braga, Rio Tapajoz.

A large species of the *incana* group; furry part of tail about an inch in length.

Size rather larger than in *incana*. Fur of moderate length, hairs of back about 7 mm. in length. General colour above dull cinnamon, about as in *M. murina*. Under surface and inner side of limbs dull creamy white, the whitish area narrowed on the belly, where it is about an inch in breadth. Black orbital rings well marked. Hands and feet whitish. Tail-base furry for about an inch, though the fur there is only about 4-5 mm. in length; rest of tail naked, brown, with fine and inconspicuous white marblings throughout its length, but these are probably often absent.

Skull long, narrow, more strongly built than in *incana*, with well-marked parallel beads along the supraorbital edges, not projected outwards into ledges. Teeth proportionally small.

Dimensions of the type:—

Head and body 148 mm.; tail 204; hind foot 21; ear 22.

Skull: greatest length 40.5; condylo-basal length 40.2; zygomatic breadth 20.7; nasals 19.3 × 4.7; interorbital breadth 7; breadth across supraorbital beads 7.1; palatal length 23; breadth across outer corners of  $m^2$  11.4; maxillary tooth-row 16.3; length of three anterior molariform teeth\* 6.4.

*Hab.* as above.

*Type.* Old male. B.M. no. 20. 7. 14. 40. Original number 154. Collected 7th June, 1917, by Fräulein Suetlidge.

This species belongs to the *incana* group, which does not have triangular postorbital processes projecting over the orbits. It is larger and more brown-coloured than *M. incana*, and has a longer furry base to its tail. This latter character

\* *I. e.*,  $p^1$ ,  $m^1$ , and  $m^2$ , not  $mp^3$ ,  $p^1$ , and  $m^1$  as Dr. Cabrera seems to have taken when describing his type of *Marmosa polita*, which is not adult, but still retains its milk  $p^3$ . This is clearly shown by the excellent figure he gives.



also proves its distinctness from *M. madeirensis*; Cabr., a renaming of Wagner's *Didelphys macrotarsus*.

The hairs of the sides of the neck of the type of *M. collega* are stiffened and show evidence of some glandular modification.

55. *Marmosa lima*, sp. n.

♀. 85. Ceará (F. Lima).

Allied to *M. collega*, but fur longer, colour greyer, and teeth larger.

Size rather less than in *collega*. Fur long, soft and woolly, the hairs of the back about 11 mm. in length. General colour above strong drabby grey, the back nearly "drab," the sides more buffy brown. Under surface deep soiled buffy, the bases of all the hairs, except on chin and inguinal region, slaty greyish, their tips ochraceous buffy; cheeks and interramia cinnamon-tawny, inguinal region cinnamon-buff. Tail with quite an inch and a half furry, the hairs about 8 mm. in length; rest of tail brown, with a few conspicuous whitish marblings terminally.

Skull very like that of *M. collega*, with similar but less heavy supraorbital beads. Molars rather larger.

Dimensions of the type:—

Head and body 135 mm.; tail 225; hind foot 25; ear 27.

Skull: greatest length 40; condylo-basal length 39.3; zygomatic breadth 20; nasals  $16.7 \times 4.5$ ; interorbital breadth 5.8; breadth on supraorbital beads 6; palatal length 22.5; breadth across outer corners of  $m^2$  17.7; maxillary tooth-row 16.5, three anterior molariform teeth 7.2.

*Hab.* Ceará.

*Type.* Adult but not old male. B.M. no. 20. 7. 14. 41. Original number 85. Lived for some months in the Para Zoological Gardens, to which it was brought from Ceará by Senhor F. Lima. Died 11th March, 1916.

This is a very striking species owing to the strong buffy coloration of the under surface, the long woolly fur, and the considerable extent of the furry base of the tail, so that it looks like a small member of the *cinerea* group. But in a fully adult specimen, with permanent dentition, its narrow skull and parallel supraorbital beads show that it is really an ally of the Tapajoz species just described. It is named after its captor, Senhor F. Lima.

56. *Marmosa parata*, Thos.

♀ and 2 young. 11, 12, and 18. Para Zoological Gardens. Described in 1911 from a specimen obtained at Igarapé-Assu by Mr. A. Robert.

Specimens nos. 155, from Villa Braga, and 39 and 41, from Ceará, are also allied, but show certain differences, for whose due appreciation further material is required.

57. *Monodelphis* \* *brevicaudata*, Erxl.

♂. Taperinha, near Santarem (Dr. Hagmann).

58. *Monodelphis emiliae*, Thos.

*Peromys emiliae*, Thos.

♂. 161, 162. Villa Braga, R. Tapajoz.

These two excellent specimens of this rare and beautiful opossum are of interest owing to their again showing the curious vinaceous coloration of the under surface on which some notes were given in the original description (*l. c.*). Both examples are old males and have the coloration covering nearly the whole of the under surface, quite uniformly, and similar in each case. It is, perhaps, possible that this colour, so unlike a normal mammal colour, may be due to a staining by some external cause, say a purple-juiced bark, and the rapid change in the colour after death recorded by Fräulein Suetlage would be in favour of such a view.

Whether natural or artificial, it probably increases with age, as both these examples are quite old, and have it at a maximum.

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XXXIV.—Notes on some Parasitic Worms from East Africa.

By H. A. BAYLIS, M.A.

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THE five species to be considered formed part of a collection of parasites made by Mr. A. Loveridge during 1917-1919 in British, and what was formerly German, East Africa.

NEMATODA.

1. *Ascaridia fasciata*, sp. n. (Figs. 1-3.)

Host: *Vinago delalandii*, subsp.

Locality: Dar-es-Salaam.

\* Cf. Ann. & Mag. Nat. Hist. (9) v. p. 195 (footnote).